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                 USPAT2
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                 Pre-1988 INPI data added to MARPAT
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         JAN 31
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                 added to TULSA
         FEB 21
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                 visualization results
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        FEB 22
                 Status of current WO (PCT) information on STN
                 The IPC thesaurus added to additional patent databases on STN
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NEWS 14 FEB 22
                 Updates in EPFULL; IPC 8 enhancements added
NEWS 15 FEB 27
                 New STN AnaVist pricing effective March 1, 2006
NEWS 16 FEB 28
                 MEDLINE/LMEDLINE reload improves functionality
NEWS 17
         FEB 28
                 TOXCENTER reloaded with enhancements
NEWS 18 FEB 28
                 REGISTRY/ZREGISTRY enhanced with more experimental spectral
                 property data
                 INSPEC reloaded and enhanced
NEWS 19
        MAR 01
                 Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 20 MAR 03
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AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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Boebel, Timothy A.; Gin, David Y.

AUTHOR(S):

Department of Chemistry, University of Illinois at CORPORATE SOURCE:

Urbana Champaign, Urbana, IL, 61801, USA

Abstracts of Papers, 227th ACS National Meeting, SOURCE:

Anaheim, CA, United States, March 28-April 1, 2004

(2004), ORGN-021. American Chemical Society:

Washington, D. C. CODEN: 69FGKM

Conference; Meeting Abstract DOCUMENT TYPE:

English LANGUAGE:

The process of sulfoxide covalent catalysis is established in the context of a versatile dehydrative glycosylation reaction. Hemiacetal donors (1) are activated by benzenesulfonic anhydride and a dialkyl sulfoxide catalyst, n-Bu2SO, for the direct glycosylation of various nucleophiles (Nu-H). The sulfoxide catalyst functions uniquely in three capacities: first as an O-nucleophile, then as a S+-electrophile, and finally as a leaving group to accomplish turnover.

L10 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

2003:437856 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 139:337572

Phthalimidomethylation of O-nucleophiles with TITLE:

O-phthalimidomethyl trichloroacetimidate: A powerful

imidomethylating agent for O-protection

Ali, Ibrahim A. I.; Abdel-Rahman, Adel A.-H.; El AUTHOR(S):

Ashry, H. El Sayed; Schmidt, Richard R.

Department of Chemistry, University of Konstanz, CORPORATE SOURCE:

Konstanz, 78457, Germany

Synthesis (2003), (7), 1065-1070 SOURCE:

CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

Journal DOCUMENT TYPE: English LANGUAGE:

CASREACT 139:337572 OTHER SOURCE(S):

The reaction of 2-(hydroxymethyl)-1H-isoindole-1,3(2H)-dione with

trichloroacetonitrile gave 2,2,2-trichloroacetimidic acid

(1,3-dioxo-2H-isoindol-2-yl)methyl ester. Phthalimidomethylation of

oxygen nucleophiles by using O-phthalimidomethyl (Pim)

trichloroacetimidate in the presence of TMSOTf has been achieved in high yields. Hydrazinolysis of the phthalimido group from the O-derivs. leads to the hydroxy precursors. Thus a convenient method for the protection of oxygen nucleophiles is provided, which complements the repertoire of

available hydroxy protecting groups.

THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 33 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

2002:456091 CAPLUS ACCESSION NUMBER:

137:201497 DOCUMENT NUMBER:

TITLE: Stereoselective synthesis of pseudoglycal C-glycosides

via trichloroacetimidate activation of glycals

AUTHOR(S):

Abdel-Rahman, Adel A.-H.; Takhi, Mohamed; El Sayed, H.

El Ashry; Schmidt, Richard R.

Department of Chemistry, University of Konstanz, CORPORATE SOURCE:

Konstanz, D-78457, Germany

Journal of Carbohydrate Chemistry (2002), 21(1 & 2), SOURCE:

113-122

CODEN: JCACDM; ISSN: 0732-8303

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

CASREACT 137:201497 OTHER SOURCE(S):

A variety of functionalized pseudoglycal C-glycosides (C-pseudoglycals or C-hex-2-enopyranosides) have been obtained in excellent yield and stereoselectivity from the trimethylsilyl triflate (Me3SiOTf) catalyzed reaction of I (R = trichloroacetimidate) with silylated nucleophiles such as allyl and propargyl silanes and silyl enol ethers.

REFERENCE COUNT:

THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS 42 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2001:417817 CAPLUS

DOCUMENT NUMBER:

135:180908

TITLE:

AUTHOR(S):

Stereoselective 2-deoxy- $\beta$ -O-glycoside synthesis

based on remote activation of novel oxathiine donors Bartolozzi, Alessandra; Capozzi, Giuseppe; Menichetti,

Stefano; Nativi, Cristina

CORPORATE SOURCE:

Centro CNR "Chimica dei Composti Eterociclici", Dipartimento di Chimica Organica, Universita di

Firenze, Florence, 50121, Italy

SOURCE:

European Journal of Organic Chemistry (2001), (11),

2083-2090

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER:

Wiley-VCH Verlag GmbH Journal

DOCUMENT TYPE:

English

LANGUAGE:

OTHER SOURCE(S):

CASREACT 135:180908

Stable glyco-fused 1,4-oxathiine derivs., prepared by inverse electron-demand Diels-Alder reactions between suitable 1-glycals and 3-thioxopentane-2,4-dione, have been transformed into unusual glycosyl donors which, after "remote activation", react efficiently with glycosyl

acceptors to afford 2-thio- $\beta$ -O-glycosides with total

stereoselectivity. Several O-nucleophiles were successfully glycosylated. Reductive removal of sulfur transformed the 2-thio- $\beta$ -O-glycosides into the corresponding 2-deoxy- $\beta$ -O-

glycosides without affecting the stereochem. of the anomeric carbon atom. 30

REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2000:881188 CAPLUS

DOCUMENT NUMBER:

134:25335

TITLE:

Chromatographic determination of P-glycoprotein-

reactive ligands

INVENTOR(S):

Wainer, Irving; Zhang, Yanxiao

PATENT ASSIGNEE(S):

Georgetown University, USA

SOURCE: PCT Int. Appl., 42 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE DATE WO 2000-US15820 20000609 WO 2000075179 A1 20001214 W: CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE

20000609 CA 2376825 AA 20001214 CA 2000-2376825 EP 2000-939704 20020227 20000609 EP 1181311 Α1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, FI

PRIORITY APPLN. INFO.: US 1999-151402P P 19990609

WO 2000-US15820 W 20000609

A flow chromatog. system with P-glycoprotein immobilized thereto is used in a method of identifying, isolating, and characterizing ligands that are reactive to P-glycoprotein.

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:544755 CAPLUS

DOCUMENT NUMBER: 135:273128

A mechanistic study: nucleophile dependence in TITLE:

glucosylation with glucosyl bromides

Bowden, Tim; Garegg, Per J.; Maloisel, Jean-Luc; AUTHOR(S):

Konradsson, Peter

Department of Organic Chemistry, Arrhenius Laboratory, CORPORATE SOURCE:

Stockholm University, Stockholm, SE-106 91, Swed. Israel Journal of Chemistry (2000), 40(3-4), 271-277

SOURCE: CODEN: ISJCAT; ISSN: 0021-2148

Laser Pages Publishing PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

CASREACT 135:273128 OTHER SOURCE(S):

Glycosylation using glucosyl bromides and various promoters (Et4NBr, HqBr2, or AgOTf) were investigated, competitively and kinetically. reactions were found to be dependent in both glucosyl bromide and

nucleophilic concentration, indicating a SN2-type rate, determining step. For

the

AgOTf promoted reaction an ion pair mechanism involving glucosyl triflates

is suggested.

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS 19 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

1997:663280 CAPLUS ACCESSION NUMBER:

127:293482 DOCUMENT NUMBER:

An efficient method for catalytic and stereoselective TITLE:

synthesis of 2-deoxy- $\alpha$ -D-glucopyranosides from

3,4,6-tri-O-benzyl-2-deoxy-D-glucopyranose and several

alcoholic nucleophiles

Takeuchi, Kazuya; Higuchi, Satoshi; Mukaiyama, Teruaki AUTHOR(S): Department of Applied Chemistry, Faculty of Science, CORPORATE SOURCE:

Science University of Tokyo, Kagurazaka, 162, Japan

Chemistry Letters (1997), (10), 969-970 CODEN: CMLTAG; ISSN: 0366-7022 SOURCE:

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal English LANGUAGE:

OTHER SOURCE(S): CASREACT 127:293482

Several 2-deoxy- $\alpha$ -D-glucopyranosides are stereoselectively synthesized in high yields by glycosylation of various alc.

nucleophiles with 3,4,6-tri-O-benzyl-2-deoxy-glucopyranose using a

catalytic amount of trityl tetrakis(pentafluorophenyl)borate.

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 20 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

1997:259102 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 126:305734 TITLE: Highly stereoselective synthesis of

2'-deoxy- $\alpha$ -ribonucleosides and

 $2-\text{deoxy}-\alpha-\text{C-ribofuranosides}$  by remote

stereocontrolled glycosylation

AUTHOR(S): Mukaiyama, Teruaki; Ishikawa, Tatsuya; Uchiro, Hiromi

CORPORATE SOURCE: Dep. Applied Chem., Sci. Univ. Tokyo, Tokyo, 162,

Japan

SOURCE: Chemistry Letters (1997), (4), 389-390

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Nippon Kagakkai

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:305734

AB A new and efficient method for catalytic highly  $\alpha$ -selective N- and

C-glycosylations of 2-deoxyribose derivative with various trimethylsilylated

nucleophiles was successfully developed by utilizing effective remote stereocontrol with 5-O-diethylthio carbamoyl directing group. Several

2'-deoxy- $\alpha$ -ribonucleosides and precursors of its C-analogs were

prepared in good yields with high stereoselectivities.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:605883 CAPLUS

DOCUMENT NUMBER: 121:205883

TITLE: Synthesis of C-glycosylated compounds using a mild,

iodine-catalyzed reaction

INVENTOR(S): Koreeda, Masato; Houston, Todd A.

PATENT ASSIGNEE(S): University of Michigan, USA

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

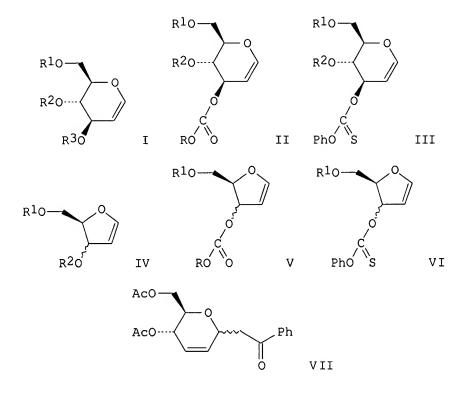
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9407899	A1	19940414	WO 1993-US9037	19930923
$W \cdot CA$ .TP				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 5414074 A 19950509 US 1992-951529 19920925
PRIORITY APPLN. INFO.: US 1992-951529 A 19920925

OTHER SOURCE(S): CASREACT 121:205883; MARPAT 121:205883

GI



AB Cl $\alpha$ - and Cl $\beta$ -glycosides were prepared from soft carbon nucleophiles and glycals (I-VI; R = alkyl; R1-R3 = aliphatic or aromatic acyl) in the presence of catalytic iodine. Thus, triacetyl D-glucal and cat. iodine in THF at -50° were treated with acetophenone trimethylsilyl enol ether and the mixture was allowed to warm to room temperature over 12 h to give 78% title compound VII as a 2.7:1 mixture of  $\alpha/\beta$  epimers.

L10 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:265819 CAPLUS

DOCUMENT NUMBER: 122:106272

TITLE: A new method for the glycosylation of 1-hydroxyl

sugars: Use of methoxyacetic acid and ytterbium(III)

trifluoromethanesulfonate as catalytic promoters

AUTHOR(S): Yokoyama, Y.; Hanamoto, T.; Inanaga, J.

CORPORATE SOURCE: Institute Molecular Science, Okazaki, 444, Japan

SOURCE: Kidorui (1993), 22, 46-7

CODEN: KIDOEP; ISSN: 0910-2205

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB O-Protected 1-hydroxyl sugars are effectively cross-coupled with a variety

of alcs. and thiols to give the corresponding glycosides by using a

catalytic amount of methoxyacetic acid and ytterbium(III)

trifluoromethanesulfonate [Yb(OTf)3].

L10 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:265817 CAPLUS

DOCUMENT NUMBER: 122:106271

TITLE: New glycosylation using lanthanoid(III) complex

catalysts

AUTHOR(S): Yokoyama, Y.; Hanamoto, T.; Inanaga, J.

CORPORATE SOURCE: Institute Molecular Science, Okazaki, 444, Japan

SOURCE: Kidorui (1993), 22, 42-3

Kidorui (1993), 22, 42-3 CODEN: KIDOEP; ISSN: 0910-2205

DOCUMENT TYPE: Journal LANGUAGE: Japanese

In the presence of a catalytic amount of lanthanoid(III) complex such as AB Tb(OTf)3, Ho(OTf)3, Tm(OTf)3 or Yb(OTf)3, 1-O-methoxyacetyl sugars react with a variety of alcs. and thiols to give the corresponding glycosides in good to excellent yields.

L10 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

1991:164644 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 114:164644

Direct preparation of 2-deoxy-D-glucopyranosides from TITLE:

glucals without Ferrier rearrangement

Bolitt, Veronique; Mioskowski, Charles; Lee, S. G.; AUTHOR(S):

Falck, J. R.

CORPORATE SOURCE: Southwest. Med. Cent., Univ. Texas, Dallas, TX, 75235,

USA

Journal of Organic Chemistry (1990), 55(23), 5812-13 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

Journal English

LANGUAGE: OTHER SOURCE(S):

CASREACT 114:164644

GI

$$R^{1}CH_{2}$$
 OR  $R^{1}CH_{2}$  OR  $R^{2}$  II

An efficient catalytic procedure for the preparation of 2-deoxyglucosides from AB glucals without allylic or Ferrier rearrangement using triphenylphosphine hydrobromide and a wide variety of hydroxylic nucleophiles is described. Thus, glucals I [R = Ac, CH2Ph, CH2C6H3(OMe)2-3,4, R1 = OR, H], when treated with Ph3PHBr and EtOH, PhOH, p-ClC6H4OH, AcOH, or MeC6H4CO2H, gave glycosides II [R = Ac, R1 = OAc, R2 = EtO, PhO; R = CH2Ph, R1 = OCH2Ph, R2 = p-C1C6H4O, AcO; R = CH2C6H3(OMe)2-3,4, R1 = OCH2C6H3(OMe)2-3,4, R2 = EtO, PhO, AcO, p-MeC6H4CO2].

L10 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

1989:458185 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 111:58185

Stereoselective 1,2-cis glycosylation reaction of TITLE:

1-O-acetylribose with silylated nucleophiles promoted

by a new catalyst system

Mukaiyama, Teruaki; Shimpuku, Tetsuro; Takashima, AUTHOR(S):

Toru; Kobayashi, Shu

Fac. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan CORPORATE SOURCE:

Chemistry Letters (1989), (1), 145-8 SOURCE:

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 111:58185

1,2-cis-Ribofuranosides are stereoselectively prepared in high yields by the reaction of 1-O-acetyl-2,3,5-tri-O-benzyl- $\beta$ -D-ribofuranose with silylated nucleophiles by the promotion of a new catalyst system, the combined use of a catalytic amount of tin(IV) chloride and tin(II) triflate with a stoichiometric amount of lithium perchlorate.

L10 ANSWER 14 OF 16 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on DUPLICATE 1 STN

1988:87248 BIOSIS ACCESSION NUMBER:

PREV198885044020; BA85:44020 DOCUMENT NUMBER:

TITLE: 5 AZA-7-DEAZA-2'-DEOXYGUANOSINE STUDIES ON THE GLYCOSYLATION OF WEAKLY NUCLEOPHILIC IMIDAZO-1

2-A-S-TRIAZINYL ANIONS.

ROSEMEYER H [Reprint author]; SEELA F AUTHOR(S):

LAB ORGAN BIOORGAN CHEM, FACHBEREICH BIOL/CHEM, UNIV CORPORATE SOURCE:

OSNABRUECK, D-4500 OSNABRUECK, FRG

Journal of Organic Chemistry, (1987) Vol. 52, No. 23, pp. SOURCE:

5136-5143.

CODEN: JOCEAH. ISSN: 0022-3263.

DOCUMENT TYPE: Article FILE SEGMENT: RΑ ENGLISH LANGUAGE:

ENTRY DATE: Entered STN: 11 Feb 1988

Last Updated on STN: 11 Feb 1988

5-Aza-7-deaza-2'-deoxyguanosine (1) has been synthesized by glycosylation AB of the anions of the imidazo[1,2- $\alpha$ ]-s-triazines 3 or 4b with 2-deoxydi-O-(p-toluoyl)- $\alpha$ -D-erythro-pentofuranosyl chloride (7a). Glycosylation was carried out under liquid-liquid or solid-liquid phase-transfer conditions with Bu4NHSO4 or the cryptand TDA-1 as catalyst as well as in the presence of NaH. In contrast to the stereospecific glycosylation occurring at hard nucleophiles, glycosylation was not stereospecific in the case of weakly nucleophilic imidazo  $[1,2-\alpha]$ -s-triazines;  $\alpha$ - and  $\beta$ -anomers were formed by applying the three different glycosylation methods. Configurational as well as conformational parameters of the deoxynucleosides 1 and 2 were determined by one- and two-dimensional FT-NMR spectroscopy. Both anomeric 2'-deoxyguanosine isoteres exhibit the anti conformation at the N-glycosylic bond, a predominant C-2'-endo sugar puckering, and a (-sc) conformation around the C-4'-C-5' bond.

L10 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN

1988:423236 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 109:23236

Convenient synthesis of  $C-\alpha-D$ -ribofuranosyl TITLE:

compounds from 1-O-acetyl-2,3,5-tri-O-benzyl- $\beta$ -D-

ribose by the promotion of triphenylmethyl perchlorate

Mukaiyama, Teruaki; Kobayashi, Shu

AUTHOR(S):

Fac. Sci., Univ. Tokyo, Tokyo, 113, Japan CORPORATE SOURCE: Carbohydrate Research (1987), 171, 81-7 SOURCE:

CODEN: CRBRAT; ISSN: 0008-6215

Journal DOCUMENT TYPE: LANGUAGE: English

CASREACT 109:23236 OTHER SOURCE(S):

GT

PhCH2OCH2

PhCH<sub>2</sub>O OCH<sub>2</sub>Ph

In the presence of a catalytic amount of triphenylmethyl perchlorate (trityl AB perchlorate), 1-0-acetyl-2,3,5-tri-0-benzyl-β-D-ribose

stereoselectively reacted with trimethylsilyl nucleophiles, such as trimethylsilyl enol ether, allylsilane, and trimethylsilyl cyanide, to give the corresponding  $C-\alpha-D-ribofuranosyl$  derivs., e.g., I (R = CH2COCMe3, CH2COPh, CH2CH:CH2), in excellent yields. Similarly, a  $\text{C-}\alpha\text{-}\text{D-ribofuranosyl compound was obtained stereoselectively in high}$ yield by use of a flow system with polymer-supported triphenylmethyl perchlorate, prepared from polystyrene-bound triphenylmethanol, packed in a glass-tube column.

L10 ANSWER 16 OF 16 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on

STN DUPLICATE 2

ACCESSION NUMBER: 1987:46966 BIOSIS

DOCUMENT NUMBER: PREV198783026312; BA83:26312

TITLE: CHARACTERIZATION OF OLIGOSACCHARIDES THAT BIND TO HUMAN
ANTI-MYELIN-ASSOCIATED GLYCOPROTEIN ANTIBODIES AND TO THE

MOUSE MONOCLONAL ANTIBODY HNK-1.

AUTHOR(S): SHY N E [Reprint author]; GABEL C A; VIETORISZ E C; LATOV N

CORPORATE SOURCE: COLUMBIA UNIV, COLL PHYSICIANS SURG, 630 WEST 168TH ST,

BLACK BUILD 323, NEW YORK, NY 10032, USA

SOURCE: Journal of Neuroimmunology, (1986) Vol. 12, No. 4, pp.

291-298.

CODEN: JNRIDW. ISSN: 0165-5728.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 7 Jan 1987

Last Updated on STN: 7 Jan 1987

In some patients with neuropathy and  $\operatorname{IgM}$  M-proteins the M-proteins bind to AB a carbohydrate determinant that is shared by the CNS and PNS myelin-associated glycoprotein (MAG) and by several additional glycoproteins and 2 glycolipids in peripheral nerve. The HNK-1 mouse monoclonal antibody binds to the same glycoproteins and glycolipids as well as to a number of other neuronal adhesion molecules and to human natural killer cells. To isolate the epitope-bearing oligosaccharides from their respective glycoproteins were digested delipidated spinal cord and peripheral nerve with pronase. The resulting glycopeptides were fractionated by concanavalin A-Sepharose chromatography to yield tri- and tetraantennary-complex, biantennary-complex and high mannose-type qlycopeptides. Glycopeptides bearing the antigenic determinant were identified by their higher ability to block binding of M-proteins and HNK-1 antibodies to MAG-coated microwells by enzyme-linked immunosorbent assay (ELISA). Blocking activity as detected in the tri- and tetraantennary glycopeptide fraction from both CNS and PNS. The blocking activity was destroyed by pretreatment of the isolated glycopeptides and mild acid hydrolysis. Further fractionation by gel filtration chromatography indicated that the reactive glycopeptides from peripheral nerve and spinal cord eluted in the same position. The data suggest that CNS and PNS MAG and other peripheral nerve glycoproteins share similar oligosaccharides, and that the

=> => d his

L1

L6

(FILE 'HOME' ENTERED AT 13:34:56 ON 21 MAR 2006)

M-proteins and HNK-1 bind to the same structures.

FILE 'BIOSIS, EMBASE, MEDLINE, CAPLUS' ENTERED AT 13:35:21 ON 21 MAR 2006 490 REACTIVE (3A) CHROMATOGRAPHY

L2 38449 NUCLEPHILIC OR NUCLEOPHILE

L3 2 L2 (3A) CHROMATOGRAPHY

L4 38938 L1 OR L2

L5 625563 GLYCOSYLATION OR GLYCOSILATED OR GLYCOPEPTIDE OR GLYCOPROTEIN

576 L4 AND L5

L7 317 DUP REM L6 (259 DUPLICATES REMOVED)

L8 671919 GLYCOSYLATION OR GLYCOSYLATED OR GLYCOPEPTIDE OR GLYCOPROTEIN

L9 19 L4 (3A) L8

L10 16 DUP REM L9 (3 DUPLICATES REMOVED)

=> 11 and review

L11 10 L1 AND REVIEW

PROCESSING COMPLETED FOR L11

L12 10 DUP REM L11 (0 DUPLICATES REMOVED)

=> d ibib abs total

L12 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1275833 CAPLUS

DOCUMENT NUMBER: 144:90249

TITLE: Process intensification by reactive carriers in

reactive extraction and -sorption

AUTHOR(S): Bart, Hans-Joerg

CORPORATE SOURCE: Lehrstuhl fuer Thermische Verfahrenstechnik, TU Kaiserlautern, Kaiserlautern, D-67653, Germany

SOURCE: Chemie Ingenieur Technik (2005), 77(11), 1773-1783

CODEN: CITEAH; ISSN: 0009-286X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review. A survey on types of liquid ion exchangers (including

chiral selectors for separation of optical isomers) for use in reactive

extraction

PUBLISHER:

as neat substance, in solution, in micelles and liquid membranes, and on solid carriers is given. Aspects of selecting reactive extractants and of the tech. realization are discussed. Reactive adsorption and chromatog. techniques are described, including ring gap and simulated moving bed

chromatog.

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1062606 CAPLUS

DOCUMENT NUMBER: 143:389061

TITLE: Integration of reaction and material separation
AUTHOR(S): Kienle, Achim; Sundmacher, Kai; Seidel-Morgenstern,

Andreas

CORPORATE SOURCE: Max-lanck-Institut fuer Dynamik Komplexer technischer

Systeme, Institut fuer Automatisierungstechnik, Otto-von-Guericke-Universitaet, Magdeburg, D-39106,

Germany

SOURCE: Chemie Ingenieur Technik (2005), 77(9), 1417-1429

CODEN: CITEAH; ISSN: 0009-286X Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review on reactive separation processes. Potentials and

limitations of reactive distillation, membrane reactor processes, and reactive chromatog. are described for reversible reactions under the conditions of various separation behavior of educts and products (volatility, mass transfer, mobility). It is pointed out that the reaction remains incomplete, if reaction and separation compensate each other. A uniform theory of reactive

separation processes is presented which allows to predict the performance of such processes.

REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:492478 CAPLUS

DOCUMENT NUMBER: 136:151616

TITLE: Characterization of polycarbonate branch and

crosslinking structure by reactive pyrolysis

gas chromatography

AUTHOR(S): Tsuge, Shin; Otani, Hajime; Ohba, Yoshifumi

CORPORATE SOURCE: Graduate School of Engineering, Department of Applied

Chemistry, Nagoya University, Japan

SOURCE: Kobunshi Kako (2001), 50(5), 201-208

CODEN: KOKABN; ISSN: 0023-2564

PUBLISHER: Kobunshi Kankokai

Journal; General Review DOCUMENT TYPE:

LANGUAGE: Japanese

A review with refs. on the pyrolysis gas chromatog. (Py-GC) in AB

the presence of tetramethylammonium hydroxide, the system structure of Py-GC, and anal. of polycarbonate branch and crosslinking structure.

L12 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:653859 CAPLUS

DOCUMENT NUMBER: 129:276562

Characterization of synthetic high-polymers and TITLE:

natural organic compounds by reactive

pyrolysis-gas chromatography

Ishida, Yasuyuki; Ohtani, Hajime; Tsuge, Shin AUTHOR(S):

Grad. Sch. Eng., Nagoya Univ., Nagoya, 464-8603, Japan CORPORATE SOURCE:

Bunseki Kagaku (1998), 47(10), 673-688 SOURCE:

CODEN: BNSKAK; ISSN: 0525-1931

PUBLISHER: Nippon Bunseki Kagakkai Journal; General Review DOCUMENT TYPE:

LANGUAGE: Japanese

A review with 31 refs. In this paper, some features of reactive AΒ pyrolysis-gas chromatog., (reactive Py-GC) in the presence of various chemical reagents, such as an organic alkali or solid acid, are first

Then, typical applications of the reactive Py-GC to compositional anal. and a microstructural characterization of various synthetic high-polymers and natural organic compds. are overviewed. These applications include; (1) the determination of end groups and the chemical composition of polycarbonates; (2) the

determination of cationic comonomers in polyacryamide resins; (3) a study of the

degradation mechanism of fully aromatic polyesters during reactive pyrolysis in the presence of an organic alkali; (4) the determination of rosin sizing

paper; (5) the determination of lipid components contained in a single zooplanter

individual; and (6) the evaluation of sequence distributions of thermally stabilized polyacetals. All of these applications made significant contributions to opening up new practical methods to characterize the chemical composition and microstructure of engineering plastics and natural organic

compds. to which conventional anal. methods often encountered various difficulties: (1) insufficient sensitivity for a trace amount of available samples weighing on the  $\mu g$  order, (2) the requirement of time-consuming, and loss and/or contamination-causing pretreatment of samples, and/or (3) insufficient solubility of samples in most solvents for spectroscopic measurements. Furthermore, the future scope of reactive Py-GC is briefly discussed.

L12 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1991:202637 CAPLUS

DOCUMENT NUMBER: TITLE:

114:202637

AUTHOR(S):

Chromatography on immobilized

reactive dyes Stellwagen, Earle

CORPORATE SOURCE:

SOURCE:

Dep. Biochem., Univ. Iowa, Iowa City, IA, USA Methods in Enzymology (1990), 182 (Guide Protein

Purif.), 343-57

CODEN: MENZAU; ISSN: 0076-6879

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AΒ A review with 27 refs.

L12 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1986:179108 CAPLUS

DOCUMENT NUMBER: 104:179108

TITLE: Gas chromatographic analysis of reactive gases

AUTHOR(S): Nitzsche, Volker; Kolditz, Lothar

CORPORATE SOURCE: Zentralinst. Anorg. Chem., Dtsch. Akad. Wiss., Berlin,

DDR-1199, Ger. Dem. Rep.

SOURCE: Zeitschrift fuer Chemie (1985), 25(10), 375-6

CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review with 6 refs. Modifications of the metallic components

of the gas chromatograph and stationary phases, especially Porapak T, to

eliminate their interaction with the reactive gases are discussed.

Elimination of water interference is also discussed.

L12 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:113742 CAPLUS

DOCUMENT NUMBER: 102:113742

TITLE: Reactive chromatography: its

possibilities and limits

AUTHOR(S): Sardin, M.; Schweich, D.; Villermaux, J.

CORPORATE SOURCE: Lab. Sci. Genie Chim., Ec. Natl. Super. Ind. Chim.,

Nancy, Fr.

SOURCE: Informations Chimie (1984), 255, 253-5

CODEN: INFCA8; ISSN: 0020-045X

DOCUMENT TYPE: Journal; General Review

LANGUAGE: French

AB Using the transesterification of menthol with EtOAc for the preparation of

menthyl acetate as an example, reactive chromatog. for improvement of

conversion and purity of products was reviewed with 4 refs.

L12 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:211149 CAPLUS

DOCUMENT NUMBER: 100:211149

TITLE: Preparation of porous polymers containing functional

groups for subtraction of particular compounds in gas

chromatography

AUTHOR(S): Sugii, Atsushi

CORPORATE SOURCE: Pharma Coll., Kumamoto Univ., Japan

SOURCE: Bunseki (1984), (3), 206-10 CODEN: BUNSD3; ISSN: 0386-2178

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review with 19 refs.

L12 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:440189 CAPLUS

DOCUMENT NUMBER: 71:40189

TITLE: Chromatography of reactive dyes

AUTHOR(S): Cee, Ales

CORPORATE SOURCE: Coll. Advan. Chem. Technol., Pardubice, Czech.

SOURCE: Sbornik Vedeckych Praci - Vysoka Skola

Chemickotechnologicka Pardubice (1967), No. 16(Pt. 2),

205-26

CODEN: SVPVA9; ISSN: 0553-2124

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Czech

AB A review. Paper and thin-layer chromatog. are very reliable for testing the purity of dyes and determining the identity and constitution of newly discovered dyes. Chromatog. can be used for quick determination if an examined dye is a mixture or pure substance; also adequate reactivity or undesirable hydrolysis during storage can be determined. Solvent systems leading to optimal resolution are recommended for different types of fiber-reactive dyes. 39 references.

L12 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:405762 CAPLUS

DOCUMENT NUMBER: 59:5762
ORIGINAL REFERENCE NO.: 59:1064g-h

TITLE: Some applications of gas chromatography in inorganic

chemistry

AUTHOR(S): Phillips, C. S. G.; Timms, P. L.

CORPORATE SOURCE: Univ. Oxford, UK

SOURCE: Anal. Chem. (1963), 35, 505-10 CODEN: ANCHAM; ISSN: 0003-2700

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AB Volatile, reactive, toxic inorg. compds. are conveniently handled by gas chromatography for both identification and separation. The volatile hydrides of Si and Ge, prepared by the hydrolysis of an alloy of Mg with Si and (or) Ge, are readily separated and identified by this technique used in combination with vapor pressure measurements, mass spectrometry, nuclear magnetic resonance, infrared, and mol. weight detns. for verification. As the number of atoms in the straight chain silanes, germanes, and silicogermanes increases regularly, the retention time increases. The branched chain isomers have slightly lower retention times as is true for hydrocarbons. A short review of active inorg. column materials is given. 17 references.

=> glycosylation (3a) purification L13 81 GLYCOSYLATION (3A) PURIFICATION

=> dup rem 113
PROCESSING COMPLETED FOR L13
L14 48 DUP REM L13 (33 DUPLICATES REMOVED)

=> d

L14 ANSWER 1 OF 48 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 1

AN 2006:9832 BIOSIS

DN PREV200600000143

TI Production, crystallization and X-ray characterization of chemically glycosylated hen egg-white lysozyme.

AU Lopez-Jaramillo, F. J. [Reprint Author]; Perez-Banderas, F.; Hernandez-Mateo, F.; Santoyo-Gonzalez, F.

CS UGRA, Fac Ciencias, CSIC, Inst Andaluz Ciencias Tierra, Lab Estudios Cristalog, Campus Fuentenueva, Granada 18002, Spain javier@lec.ugr.es

Acta Crystallographica Section F Structural Biology and Crystallization Communications, (APR 2005) Vol. 61, No. Part 4, pp. 435-438. ISSN: 1744-3091. E-ISSN: 1744-3091.

DT Article

LA English

ED Entered STN: 14 Dec 2005 Last Updated on STN: 14 Dec 2005

=> 114 and (reaction or nucleophilic or nucleophile)
L15 6 L14 AND (REACTION OR NUCLEOPHILE)

=> d ibib abs total

L15 ANSWER 1 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:9832 BIOSIS DOCUMENT NUMBER: PREV200600000143

TITLE: Production, crystallization and X-ray characterization of

chemically glycosylated hen egg-white lysozyme.

AUTHOR(S): Lopez-Jaramillo, F. J. [Reprint Author]; Perez-Banderas,

F.; Hernandez-Mateo, F.; Santoyo-Gonzalez, F.

CORPORATE SOURCE: UGRA, Fac Ciencias, CSIC, Inst Andaluz Ciencias Tierra, Lab

Estudios Cristalog, Campus Fuentenueva, Granada 18002,

Spain

javier@lec.ugr.es

SOURCE: Acta Crystallographica Section F Structural Biology and

Crystallization Communications, (APR 2005) Vol. 61, No.

Part 4, pp. 435-438.

ISSN: 1744-3091. E-ISSN: 1744-3091.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 14 Dec 2005

Last Updated on STN: 14 Dec 2005

AB The crystallization of glycoproteins is one of the challenges to be confronted by the crystallographic community in the frame of what is known as glycobiology. The state of the art for the crystallization of glycoproteins is not promising and removal of the carbohydrate chains is generally suggested since they are flexible and a source of heterogeneity. In this paper, the feasibility of introducing glucose into the model protein hen egg-white lysozyme via a post-purification glycosylation reaction that may turn any protein into a model glycoprotein whose carbohydrate fraction can be manipulated is demonstrated.

L15 ANSWER 2 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:213471 BIOSIS DOCUMENT NUMBER: PREV200300213471

TITLE: Evaluation of phenylboronate agarose for industrial-scale

purification of erythropoietin from mammalian cell

cultures.

AUTHOR(S): Zanette, Dino; Soffientini, Adolfo; Sottani, Cristina;

Sarubbi, Edoardo [Reprint Author]

CORPORATE SOURCE: Protein Production, Aventis Pharma, 102 route de Noisy,

93235, Romainville, France edoardo.sarubbi@aventis.com

SOURCE: Journal of Biotechnology, (20 March 2003) Vol. 101, No. 3,

pp. 275-287. print.

ISSN: 0168-1656 (ISSN print).

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 30 Apr 2003

Last Updated on STN: 30 Apr 2003

The search for novel, cost-effective ways to produce erythropoietin (Epo), the world top-selling biopharmaceutical, is a major challenge for today's biotechnology industry. However, Epo's high glycosylation content (almost 40% of total mass) and the requirement for sialic acid for optimal in vivo activity still make mammalian cells the expression system of choice. In contrast to the abundance of reports on Epo production, robust, cost-effective methods for large-scale Epo purification can hardly be found in literature. To fill this gap, we describe here a process specifically studied for industrial-scale purification of the protein. Our method is based on the ability of phenylboronate agarose (PBA) to form reversible complexes with 1,2-cis-diol-containing molecules, like sugars in glycoproteins. Finding that additional factors (i.e., ionic and hydrophobic interactions) contribute to the Epo-PBA binding reaction, chromatography conditions have been optimized in scale-down experiments to improve selectivity and yield. As a result, the high performance of affinity chromatography has been achieved using a support possessing the robustness, chemical stability and low cost of a small synthetic ligand. By adding an anion exchange chromatography step and gel filtration for polishing, a pure and active product can easily be obtained by an integrated, start-to-end process optimized for industrial-scale operations.

ACCESSION NUMBER: 2000:489754 BIOSIS DOCUMENT NUMBER: PREV200000489875

TITLE: Prokaryotic expression, purification, and reconstitution of

biological activities (antiprotease, antitumor, and heparin-binding) for tissue factor pathway inhibitor-2.

AUTHOR(S): Rao, C. N. [Reprint author]; Reddy, Prasad; Reeder, Dennis

J.; Liu, Yueying; Stack, Sharon M.; Kisiel, W.; Woodley,

David T.

CORPORATE SOURCE: Center for Prostate Disease Research, 1530 East Jefferson

Street, Rockville, MD, 20852, USA

SOURCE: Biochemical and Biophysical Research Communications,

(October 5, 2000) Vol. 276, No. 3, pp. 1286-1294. print.

CODEN: BBRCA9. ISSN: 0006-291X.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 15 Nov 2000

Last Updated on STN: 10 Jan 2002

We report the expression of tissue factor pathway inhibitor-2 (TFPI-2) (also known as PP-5, placental protein-5; MSPI, matrix-associated serine protease inhibitor) in E. coli as a 25-kDa nonglycosylated protein with a glycine substituted for aspartic acid at the amino terminus. High-level expression of TFPI-2 was obtained with pRE1 expression vector under the transcriptional and translational controls of the lambdaPL promoter and lambdacII ribosome-binding site, respectively, with ATG initiation codon. TFPI-2 was produced as inclusion bodies and accounted for 25-30% of the total E. coli proteins. The inclusion bodies containing TFPI-2 were solubilized with urea, sulfitolyzed, purified, and refolded through a disulfide interchange reaction. The refolded E. coli TFPI-2 inhibited plasmin with an inhibition constant (Ki) of 5 nM that is similar with the TFPI-2 expressed in a mammalian system. The refolded E. coli TFPI-2 bound heparin and also inhibited plasmin, regardless of whether the enzyme was in the fluid phase or was bound to the membranes of HT-1080 fibrosarcoma cells. In addition, refolded E. coli TFPI-2 inhibited radiolabeled matrix degradation and Matrigel matrix invasion by HT-1080 fibrosarcoma cells and B16-F10 melanoma cells. Together, our results suggest that glycosylation is not essential for antiprotease, antitumor, and matrix-binding activities of TFPI-2. Based on these collective data, we conclude that a biologically active nonglycosylated TFPI-2 can be produced in E. coli and that the protein can be produced in high-enough quantities to conduct in vivo studies for determination of the role of this inhibitor in tumor invasion and metastasis.

L15 ANSWER 4 OF 6 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:352832 BIOSIS DOCUMENT NUMBER: PREV200000352832

TITLE: Glycosylation of macrolide antibiotics.

Purification and kinetic studies of a macrolide glycosyltransferase from Streptomyces antibioticus.

AUTHOR(S): Quiros, Luis M.; Carbajo, Rodrigo J.; Brana, Alfredo F.;

Salas, Jose A. [Reprint author]

CORPORATE SOURCE: Departamento de Biologia Funcional, Universidad de Oviedo,

33006, Oviedo, Spain

SOURCE: Journal of Biological Chemistry, (April 21, 2000) Vol. 275,

No. 16, pp. 11713-11720. print. CODEN: JBCHA3. ISSN: 0021-9258.

DOCUMENT TYPE: Article LANGUAGE: English

ENTRY DATE: Entered STN: 16 Aug 2000

Last Updated on STN: 8 Jan 2002

AB The oleD gene has been identified in the oleandomycin producer Streptomyces antibioticus and it codes a macrolide glycosyltransferase that is able to transfer a glucose moiety from UDP-glucose (UDP-Glc) to many macrolides. The glycosyltransferase coded by the oleD gene has been purified 371-fold from a Streptomyces lividans clone expressing this protein. The reaction product was isolated, and its structure

## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	76155	glycopeptide or glycoprotein or glycosylation or glycosilated	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:22
L2	2221	beta near3 elimination	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:24
L3	443	l1 and l2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:27
L4	357	I1 and I2 and (thiol or amine or hydroxy or hydroxyl)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:28
L5	370	l1 and l2 and (thiol or amine or hydroxy or hydroxyl or nucleophile or nucleophilic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:29
L6	181	I1 and I2 and (thiol or amine or hydroxy or hydroxyl or nucleophile or nucleophilic) and resin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:37
L7	177	I1 and I2 and (thiol or amine or hydroxy or hydroxyl or nucleophile or nucleophilic) and resin and (separation or purification or chromatography)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/03/21 14:38

3/21/06 3:17:53 PM Page 1